

**Amendments to the Specification:**

Please insert the Sequence Listing being filed concurrently herewith into the specification.

Please replace paragraph 133 with the following.

For example, a duplex comprising an antisense strand having the sequence CGAGAGGCGGACGGGACCG [SEQ ID No. 161] and having a two-nucleobase overhang of deoxythymidine(dT) would have the following structure:

```
cgagaggcggacgggaccgTT  Antisense Strand [SEQ ID No. 162]
|||||
TTgctctccgcctgccctggc  Complement [SEQ ID No. 163]
```

Please replace paragraph 134 with the following.

In another embodiment, a duplex comprising an antisense strand having the same sequence CGAGAGGCGGACGGGACCG may be prepared with blunt ends (no single stranded overhang) as shown:

```
cgagaggcggacgggaccg  Antisense Strand [SEQ ID No. 161]
|||||
gctctccgcctgccctggc  Complement [SEQ ID No. 164]
```

Please replace paragraph 142 with the following.

In accordance with the present invention, a series of antisense sequences were designed to target different regions of the human CD40 mRNA, using published sequences [Stamenkovic et al., *EMBO J.*, 8, 1403 (1989); GenBank accession number X60592, SEQ ID No. 85]. The sequences are shown in Table 1.

Please amend Table 4, spanning pages 83-87 as follows.

Table 4  
CD40 Antisense Sequence Alignment

SEQ ID NO:	1	15	16	30	31	45	46	60	61	75	76	90
[9] 173	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[8] 172	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[7] 171	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[6] 170	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[5] 169	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[4] 168	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[3] 167	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[2] 166	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
[1] 165	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TGC
X60592-CD40	GCCTCGCTCGGGCGC	CCAGTGGTCCCTGCGC	CCAGTGGTCCCTGCGC	CCAGTGGTCCCTGCGC	CCAGTGGTCCCTGCGC	CCATGGTTCGTCTGC	CTCTGCAGTGCGTCC	TCTGGGGCTGCTTGC				
[19] 183	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AC
[18] 182	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[17] 181	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[16] 180	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[15] 179	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[14] 178	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[13] 177	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[12] 176	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[11] 175	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[10] 174	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[9] 173	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[8] 172	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
[7] 171	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----AGGAC
X60592-CD40	TGACCGCTGTCCATC	CAGAACCACCCACTG	CATGCAGAGAAAAAC	AGTACCTAATAAACA	GTCAGTGTCTTCTT	TGTGCCAGCCAGGAC						

PATENT

DOCKET NO.: ISIS-5315  
Application No.: 10/698,689  
Preliminary Amendment - First Action Not Yet Received

Table 4, continued

[27] 191	181	195	196	210	211	225	226	240	241	255	256	270
[26] 190	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----GAGA
[25] 189	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----TAGACA
[24] 188	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----CCTGGAACAGAG
[23] 187	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[22] 186	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[21] 185	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[20] 184	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[19] 183	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[18] 182	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[17] 181	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	AGAACTGGTGAGTG	ACTGCACAGAGTTCA	CTGAAACGGAATGCC	TTCTTGGCGTGAAA	GCGAATTCCTAGACA	CCTGGAACAGAGAGA						
[37] 201	271	285	286	300	301	315	316	330	331	345	346	360
[36] 200	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----T
[35] 199	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----ACCATCTGCACCT
[34] 198	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----ACACCATCTGCACCT
[33] 197	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[32] 196	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[31] 195	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[30] 194	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[29] 193	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[28] 192	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[27] 191	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	CACACTGCCACCAG	ACAAATACTGGCACC	CCAACCTAGGGCTTC	GGGTCCAGCAGAGG	GCACCTCAGAAACAG	ACACCATCTGCACCT						

PATENT

DOCKET NO.: ISIS-5315  
Application No.: 10/698,689  
Preliminary Amendment - First Action Not Yet Received

Table 4, continued

[44] 208	361	375	376	390	391	405	406	420	421	435	436	450
[43] 207	---	---	---	---	---	---	---	---	---	---	---	---
[42] 206	---	---	---	---	---	---	---	---	---	---	---	---
[41] 205	---	---	---	---	---	---	---	---	---	---	---	---
[40] 204	---	---	---	---	---	---	---	---	---	---	---	---
[39] 203	---	---	---	---	---	---	---	---	---	---	---	---
[38] 202	---	---	---	---	---	---	---	---	---	---	---	---
[37] 201	---	---	---	---	---	---	---	---	---	---	---	---
[36] 200	---	---	---	---	---	---	---	---	---	---	---	---
[35] 199	---	---	---	---	---	---	---	---	---	---	---	---
X60592-CD40	GTGAAGAAGGCTGGC	ACTGTACGAGTGAGG	CCTGTGAGAGCTGTG	TCCTGCACCGCTCAT	GCTGCCCCGGCTTTG	GGGTCAAGCAGATTG						
[56] 220	451	465	466	480	481	495	496	510	511	525	526	540
[55] 219	---	---	---	---	---	---	---	---	---	---	---	---
[54] 218	---	---	---	---	---	---	---	---	---	---	---	---
[53] 217	---	---	---	---	---	---	---	---	---	---	---	---
[52] 216	---	---	---	---	---	---	---	---	---	---	---	---
[51] 215	---	---	---	---	---	---	---	---	---	---	---	---
[50] 214	---	---	---	---	---	---	---	---	---	---	---	---
[49] 213	---	---	---	---	---	---	---	---	---	---	---	---
[48] 212	---	---	---	---	---	---	---	---	---	---	---	---
[47] 211	---	---	---	---	---	---	---	---	---	---	---	---
[46] 210	---	---	---	---	---	---	---	---	---	---	---	---
[45] 209	---	---	---	---	---	---	---	---	---	---	---	---
[44] 208	---	---	---	---	---	---	---	---	---	---	---	---
X60592-CD40	CTACAGGGGTTTCTG	ATACCATCTGCGAGC	CCTGCCAGTCGGCT	TCTTCTCCAATGCT	CATCTGCTTTTCGAAA	AATGTCACCCCTTGGG						

PATENT

DOCKET NO.: ISIS-5315  
Application No.: 10/698,689  
Preliminary Amendment - First Action Not Yet Received

Table 4, continued

[65] 229	541	555	556	570	571	585	586	600	601	615	616	630
[64] 228	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	AGCCC
[63] 227	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	CTGAGAGCCC
[62] 226	-----	-----	-----	-----	-----	-----	-----	-----	-----	GTCCCCAGG	ATCGGCTGA	-----
[61] 225	-----	-----	-----	-----	-----	-----	-----	-----	-----	TCTGTGGTCCCCAG	-----	-----
[60] 224	-----	-----	-----	-----	-----	-----	-----	-----	-----	TCTGTGG	-----	-----
[59] 223	-----	-----	-----	-----	-----	GGCAGGCACAA	ACAAGAC	-----	-----	-----	-----	-----
[58] 222	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[57] 221	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[56] 220	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[55] 219	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[54] 218	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	CAAGCTGTGAGACCA	AAGACCTGGTTGTGC	AACAGGCAGGCACAA	ACAAGACTGATGTTG	TCTGTGGTCCCCAGG	ATCGGCTGAGAGCCC	-----	-----	-----	-----	-----	-----
[69] 233	631	645	646	660	661	675	676	690	691	705	706	720
[68] 232	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[67] 231	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[66] 230	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[65] 229	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[64] 228	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	TGGTGGTGATCCCCA	TCATCTTCGGGATCC	TGTTTGCCATCCTCT	TGGTGGTCTTTTA	TCAAAA	-----	-----	-----	-----	-----	-----	-----

PATENT

DOCKET NO.: ISIS-5315  
Application No.: 10/698,689  
Preliminary Amendment - First Action Not Yet Received

Table 4, continued

[78] 242	721	735	736	750	751	765	766	780	781	795	796	810
[77] 241	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----T
[76] 240	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----GACTT
[75] 239	-----	-----	-----	-----	-----	-----	-----	-----T	CCAACACTGCTGCTC	CA	-----	-----CAGTGCAGGAGACTT
[74] 238	-----	-----	-----	-----	-----	-----	ACGATCTTCTGGCT	CCA	-----	-----	-----	-----
[73] 237	-----	-----	-----	-----	-----	-----	ACGATCTTCTGGCT	CC	-----	-----	-----	-----
[72] 236	-----	-----	-----	-----	-----	-----	ACGATCTTCTGGCT	-----	-----	-----	-----	-----
[71] 235	-----	-----	-----	-----	-----	-----	ACGATCTTCTGGCT	-----	-----	-----	-----	-----
[70] 234	-----	-----	-----	-----	-----	-----	ACGATCTTCTGGCT	-----	-----	-----	-----	-----
X60592-CD40	AGGCCCCCACC	AGCAGGAACCC	AGATCAATTTTCCCG	AGATCAATTTTCCCG	AGATCAATTTTCCCG	AGATCAATTTTCCCG	AGATCTTCTGGCT	CCAACACTGCTGCTC	-----	-----	-----	-----CAGTGCAGGAGACTT
[81] 245	811	825	826	840	841	855	856	870	871	885	886	900
[80] 244	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[79] 243	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[78] 242	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[77] 241	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[86] 240	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	TACATGGATGCCAAC	CGGTACCCAGGAGG	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT	ATGGCAAAGAGAGT
[84] 248	901	915	916	930	931	945	946	960	961	975	976	990
[83] 247	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
[82] 246	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	TGTGGCCACGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG	AAACAGGAGTGGG
[84] 248	991	1004	-----	-----	-----	-----	-----	-----	-----	-----	-----	-----
X60592-CD40	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----	AGT-----

Please replace paragraph 192 with the following.

Total RNA was isolated using an RNeasy Mini Kit (Qiagen). Two-step RT-PCR was performed using primers complementary to sequences of the CD40 gene (Genbank accession# M83312, incorporated herein as SEQ ID NO: 92). Reverse transcription was performed using a reverse primer (5'-TGATATAGAGAAACACCCCGAAAATGG-3'; SEQ ID NO: 93) complementary to sequence in exon 7. The resulting cDNA was subjected to 35 cycles of PCR using a forward primer consisting of a sequence span identical to that found in exon 5 of the gene (5'-GCCACTGAGACCACTGATACCGTCTGT-3'; SEQ ID NO: 94) as well as the reverse primer used for cDNA generation. The resulting PCR products were separated on a 1.6% agarose gel. PCR products were excised and the DNA purified. The resulting products were sequenced using primers used in PCR. Real-time quantitative RT-PCR was performed on total RNA from BCL<sub>1</sub> or primary macrophages using an ABI Prism® 7700. Primer and dual labeled probe sequences were as follows:

Mouse IL-12 p40:

forward 5'-GCCAGTACACCTGCCACAAA- 3', SEQ ID No. 95  
reverse 5'-GACCAAATTCCATTTTCCTTCTTG-3', SEQ ID No. 96  
probe 5'-FAM-AGGCGAGACTCTGAGCCACTCACATCTG-TAMRA-3' ,  
SEQ ID No. 97

Mouse CD18:

Forward 5'-CTGCATGTCCGGAGGAAATT-3' SEQ ID No. 98  
Reverse 5'-AGCCATCGTCTGTGGCAAA-3' SEQ ID No. [9] 99

Probe 5'-FAM-CTGGCGCAATGTCACGAGGCTG-TAMRA-3', SEQ ID  
No. 100

## Mouse CD40, Type 1:

Forward 5'-CACTGATACCGTCTGTCATCCCT-3' SEQ ID No. 101  
Reverse 5'-AGTTCTTATCCTCACAGCTTGTTCA-3' SEQ ID No. 102  
Probe 5'-FAM-AGTCGGCTTCTTCTCCAATCAGTCATCACTT-TAMRA-3'  
SEQ ID No. 103

## Mouse CD40, Type 2:

Forward 5'-CACTGATACCGTCTGTCATCCCT-3' SEQ ID No. 104  
Reverse 5'-CCACATCCGGGACTTTAAACCTTGT-3' SEQ ID No. 105  
Probe 5'-FAM-CCAGTCGGCTTCTTCTCCAATCAGTCA-TAMRA-3' SEQ  
ID No. 106

## Mouse CD40:

Forward 5'-TGTGTTACGTGCAGTGACAAACAG-3' SEQ ID No. 107  
Reverse 5'-GCTTCCTGGCTGGCACAA-3' SEQ ID No. 108  
Probe 5'-FAM-CCTCCACGATCGCCAGTGCTGTG-TAMRA-3' SEQ ID  
No. 109

## Mouse cyclophilin:

Forward 5'-TCGCCGCTTGCTGCA-3' SEQ ID No. 110  
Reverse 5'-ATCGGCCGTGATGTCGA-3' SEQ ID No. 111  
Probe 5'-FAM-CCATGGTCAACCCACCGTGTTT-TAMRA-3' SEQ ID  
No. 112



Please amend Table 9, spanning pages 112-121 with the following.

Table 9

## Additional PNA Cationic Conjugate Compounds of SEQ ID NO: 124

Isis #Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
208529-1		K		80, 98, 100	stable	stable
278640-1	K	K		80	<i>n.d.</i>	
278641-1	K <sub>2</sub>	K		90	<i>n.d.</i>	
278642-1	K <sub>3</sub>	K		80	<i>n.d.</i>	
278643-1	K <sub>4</sub> (SEQ ID NO: 161)	K		100	<i>n.d.</i>	
278644-1	K <sub>5</sub> (SEQ ID NO: 162)	K		70	<i>n.d.</i>	
278645-1	K <sub>6</sub> (SEQ ID NO: 163)	K		50	<i>n.d.</i>	
278646-1	K <sub>7</sub> (SEQ ID NO: 164)	K		30	<i>n.d.</i>	
278647-1	K <sub>8</sub> (SEQ ID NO: 165)	K		20, 30, 35, 30, 15	5.7	1.4
287294-1	K <sub>8</sub>	K	4 mm	100	<i>n.d.</i>	
287293-1	K <sub>6</sub>	K	4 mm	100	<i>n.d.</i>	
284381-1		K <sub>2</sub>		95	<i>n.d.</i>	
279866-1		K <sub>4</sub>		85	6.5	1.6
284375-1		K <sub>8</sub>		40, 35, 35, 40, 35, 45, 73, 68	1	0.25
290075-1	R	K		100	<i>n.d.</i>	
290076-1	R <sub>2</sub>	K		90	<i>n.d.</i>	

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
290077-1	R <sub>3</sub>	K		90	<i>n.d.</i>	
290078-1	R <sub>4</sub> (SEQ ID NO: 166)	K		80	<i>n.d.</i>	
290079-1	R <sub>5</sub> (SEQ ID NO: 167)	K		80	<i>n.d.</i>	
297780-1	R <sub>6</sub> (SEQ ID NO: 168)	K		75	<i>n.d.</i>	
290081-1	R <sub>7</sub> (SEQ ID NO: 169)	K		70	<i>n.d.</i>	
290082-2	R <sub>8</sub> (SEQ ID NO: 170)	K		60	3.2	0.8
301010-1	D-R <sub>8</sub>	K		49	<i>n.d.</i>	
299870-1		K <sub>3</sub> RK <sub>2</sub> (SEQ ID NO: 171)		48	<i>n.d.</i>	
299871-1		D(K <sub>3</sub> RK <sub>2</sub> ) (SEQ ID NO: 172)		53	<i>n.d.</i>	
284382-1	K <sub>2</sub>	K <sub>2</sub>		85	<i>n.d.</i>	
279867-1	K <sub>4</sub>	K <sub>4</sub>		75	<i>n.d.</i>	
284383-1	Ada-O	K <sub>2</sub>		80	<i>n.d.</i>	
284384-1	Ada-O-K <sub>2</sub>	K <sub>2</sub>		85	<i>n.d.</i>	
279975-1	Ada-O	K <sub>4</sub>		95	<i>n.d.</i>	
279976-1	Ada-O-K <sub>4</sub>	K <sub>4</sub>		75	<i>n.d.</i>	
284376-1	Ada-O	K <sub>8</sub>		40	<i>n.d.</i>	
284385-1	Pam-O	K <sub>2</sub>		<i>n/a</i> tox.	<i>n.d.</i>	
284386-1	Pam-O-K <sub>2</sub>	K <sub>2</sub>		<i>n/a</i> tox.	<i>n.d.</i>	
283582-1	Pam-O	K <sub>4</sub>		70	<i>n.d.</i>	
283583-1	Pam-O-K <sub>4</sub>	K <sub>4</sub>		60	<i>n.d.</i>	

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
284377-1	Pam-O	K <sub>8</sub>		n/a tox.	n.d.	
290061-1	Ibu-O	K <sub>2</sub>		80	n.d.	
287086-1	Ibu-O	K <sub>8</sub>		30	1	0.25
311573-1	Ibu-O-K <sub>8</sub>	K		n.d.	n.d.	
290063-1	CHA-O	K <sub>2</sub>		95	n.d.	
290064-1	Chol-O-	K <sub>2</sub>		n/a tox.	n.d.	
292097-1	CHA-O-K <sub>8</sub>	K		55	n.d.	
292098-1	Chol-O-K <sub>8</sub>	K		n/a tox.	n.d.	
298110-1	Branch1-K	K		60	n.d.	
298111-1	Branch3-K	K		85	n.d.	
298112-1	Branch4-K	K		60	n.d.	
298113-1	Branch5-K	K		75	n.d.	
298114-1	Branch6-K	K		70	n.d.	
298116-1	Branch2-K	K		40	n.d.	
303537-1	RacaRRacaRRacaRR	K		23, 29	2	0.5
303540-1	KacaKKacaKKacaKK	K		70	n.d.	
303538-1	RacaRacaRacaRacaRacaRacaR	K		40	n.d.	
309743-1	dR.aca.dR.dR.aca.dR.dR.aca.dR.dR	K		35	n.d.	
303539-1	KacaKacaKacaKacaKacaKacaK	K		61	n.d.	

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
291341-1	KGKKGK (SEQ-ID NO: 173)	K		87	<i>n.d.</i>	
291342-1	KaocKKaocKaocK	K		79	<i>n.d.</i>	
330890-1	hR-O-hR-hR-O-hR-hR- O-hR-hR	K		25 at 3 $\mu$ M	59	12
338896-1	hR-O-R-hR-O-R-hR-O- R-hR	K		49	2	0.5
338897-1	R-O-hR-R-O-hR-R-O- hR-R	K		54	4	1
315570-1	RacaRRacaRRacaRR- PKKKRKV	K		25	<i>n.d.</i>	
315571-1	RacaRRacaRRacaRR- KKVKPKR	K		41	<i>n.d.</i>	
315650-1	PKKKRKV- RacaRRacaRRacaRR	K		44	<i>n.d.</i>	
315573-1	KKVKPKR- RacaRRacaRRacaRR	K		31	<i>n.d.</i>	
309860-1	R- $\beta$ A-RR- $\beta$ A-RR $\beta$ A- RR	K		27	<i>n.d.</i>	
309883-1	R-abu-RR-abu-RR-abu- RR	K		26	<i>n.d.</i>	
309861-1	R-aoc-RR-aoc-RR-aoc- RR	K		25	<i>n.d.</i>	
309864-1	R-aca-RR-aca-RR-aca- RR-aca	K		20	<i>n.d.</i>	
309862-1	R-O-RR-O-RR-O-RR	K		24	2	0.5

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
309865-1	RR-aca-RR-aca-RR	K		40	<i>n.d.</i>	
309866-1	R-aca-RR-aca-RR	K		58	<i>n.d.</i>	
309884-1	R-inp-RR-inp-RR-RR	K		29	<i>n.d.</i>	
309885-1	R-amc-RR-amc-RR-amc-RR	K		27	<i>n.d.</i>	
291350-2	( $\beta$ K) <sub>8</sub>	K		66	<i>n.d.</i>	
309843-1	$\beta$ K- $\beta$ K-KKKK- $\beta$ K- $\beta$ K	K		52	<i>n.d.</i>	
309844-1	(K- $\beta$ K) <sub>4</sub>	K		62	<i>n.d.</i>	
309845-1	KK- $\beta$ K-KK- $\beta$ K-KK	K		61	<i>n.d.</i>	
303536-1	D-(Om) <sub>8</sub>	K		67	<i>n.d.</i>	
303327-1		(Om) <sub>8</sub>		64	<i>n.d.</i>	
301011-2	(Om) <sub>8</sub>	K		77	> 48	> 12
309143-1	Om-Om-KKKK-Om-Om	K		52	<i>n.d.</i>	
309144-1	(K-Om) <sub>4</sub>	K		42	<i>n.d.</i>	
309145-1	KK-Om-KK-Om-KK	K		34	19	4.75
311069-1	KKKKK-Om-KK	K		50	<i>n.d.</i>	
311070-1	KK-Om-KKKKK	K		53	<i>n.d.</i>	
287292-2	(dK) <sub>8</sub>	K		54	stable	> 48
305390-1	dKdK-KKKKK-dKdK	K		60	<i>n.d.</i>	
305391-1	K-dK-K-dK-K-dK-K-dK	K		69	<i>n.d.</i>	

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
305392-1	KK-dK-KK-dK-KK	K		62	stable	> 48
311071-1	KKKKK-dK-KK	K		61	<i>n.d.</i>	
311072-1	KK-dK-KKKKK	K		59	<i>n.d.</i>	
305393-1	RRKKKKRRR (SEQ ID NO: 174)	K		65	<i>n.d.</i>	
305394-1	KRKRRKR (SEQ ID NO: 175)	K		52	<i>n.d.</i>	
305395-1	KKRKKRKK (SEQ ID NO: 176)	K		43	2.5	0.6
308579-1	(hK) <sub>8</sub>	K		31	18	4.5
308580-1	hKhK-KKKK-hKhK	K		34	<i>n.d.</i>	
308581-1	K-hK-K-hK-K-hK-K- hK	K		32	<i>n.d.</i>	
308582-1	KK-hK-KK-hK-KK	K		31	7.5	1.9
316409-1	(Dab) <sub>8</sub>	K		77	> 48	> 12
316410-1	(Dab) <sub>2</sub> -K-(Dab) <sub>2</sub> -K- (Dab) <sub>2</sub>	K		64	<i>n.d.</i>	
316411-1	(Dab-K) <sub>4</sub>	K		52	<i>n.d.</i>	
316412-1	KK-Dab-KK-Dab-KK	K		38	40	10
316427-1	(K-ab) <sub>8</sub>	K		47	<i>n.d.</i>	
316428-1	(K-(K-ab)) <sub>4</sub>	K		41	<i>n.d.</i>	
316429-1	KK-(K-ab)-KK-(K-ab)- KK	K		39	<i>n.d.</i>	

Isis #/Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
316430-1	(K-ab) <sub>2</sub> -K-(K-ab) <sub>2</sub> -K- (K-ab) <sub>2</sub>	K		55	<i>n.d.</i>	
325598-1	(dmK) <sub>8</sub>	K		71	stable	
325599-1	(K-dmK) <sub>4</sub>	K		53	<i>n.d.</i>	
325600-1	KK-dmK-KK-dmK-KK	K		41	23	5.8
325601-1	(dmK) <sub>2</sub> -K-(dmK) <sub>2</sub> -K- (dmK) <sub>2</sub>	K		63	<i>n.d.</i>	
326744-1	(hR) <sub>8</sub>	K		30, 20	15.4	3.9
	(hhR) <sub>8</sub>	K		n/a	stable	stable
333677-1	(K-hR) <sub>4</sub>	K		44	<i>n.d.</i>	
333678-1	KK-hR-KK-hR-KK	K		36	<i>n.d.</i>	
338894-1	(DhR) <sub>8</sub>	K		n/a tox.	<i>n.d.</i>	
338895-1	RR-DhR-RR-DhR-RR	K		67	23.6	5.9
326746-1	(norR) <sub>8</sub>	K		90 at 3 $\mu$ M	> 48	> 12
333674-1	G(pK) <sub>8</sub>	K		56	> 48	> 12
333675-1	(K-pK) <sub>4</sub>	K		70	<i>n.d.</i>	
333676-1	KK-pK-KK-pK-KK	K		60	29	7.25
332593-1	(H) <sub>8</sub> (SEQ ID NO: 177)	K		64	44.5	11
332672-1	(KH) <sub>4</sub> (SEQ ID NO: 178)	K		73	<i>n.d.</i>	
332673-1	KKHKHKHK (SEQ ID NO: 179)	K		52	5.7	1.4
332674-1	KKGKKGKK (SEQ ID NO: 180)	K		59	<i>n.d.</i>	

DOCKET NO.: ISIS-5315

Application No.: 10/698,689

Preliminary Amendment - First Action Not Yet Received

PATENT

Isis #-Lot#	N-terminal modification	C-terminal modification	notes	CD40 Protein (% UTC @ 10 $\mu$ M)	$t_{1/2}$ [h] in 25% mouse serum	Est. $t_{1/2}$ [h] in 100% mouse serum
	NO-180					
313685-1	K <sub>7</sub> -Ci	K		65	<i>n.d.</i>	
313686-1	K <sub>6</sub> -Ci-K	K		59	<i>n.d.</i>	
313687-1	K <sub>5</sub> -Ci-K <sub>2</sub>	K		53	<i>n.d.</i>	
313688-1	K <sub>4</sub> -Ci-K <sub>3</sub>	K		52	<i>n.d.</i>	
313689-1	K <sub>3</sub> -C-K <sub>4</sub>	K		57	<i>n.d.</i>	
313690-1	K <sub>2</sub> -Ci-K <sub>5</sub>	K		55	<i>n.d.</i>	
313691-1	K-Ci-K <sub>6</sub>	K		57	<i>n.d.</i>	
313692-1	Ci-K <sub>7</sub>	K		52	<i>n.d.</i>	
313693-1	KK-Ci-KK-Ci-KK	K		65, 67	<i>n.d.</i>	
310755-1	K <sub>8</sub> - $\beta$ A	K		43	<i>n.d.</i>	
310756-1	K <sub>8</sub> -aca	K		48	<i>n.d.</i>	
310757-1	K <sub>8</sub> -aoc	K		54	<i>n.d.</i>	
310758-1	K <sub>8</sub> -adc	K		68	<i>n.d.</i>	
291335-2	K <sub>8</sub> -aoc-aoc	K		62	<i>n.d.</i>	
310753-1	K <sub>8</sub> -O	K		44	<i>n.d.</i>	
310754-1	K <sub>8</sub> -O-O	K		46	<i>n.d.</i>	
330775-1	(dK) <sub>8</sub> -FRGO	K		46	2.8	0.7
330776-1	(dK) <sub>8</sub> -dF-dRGO	K		54	<i>n.d.</i>	
330777-1	(dK) <sub>8</sub> -ALALGO	K		37	8.7	2.2
330778-1	(dK) <sub>8</sub> -dA-dLdAdLGO	K		36	<i>n.d.</i>	



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335296-1	(dK) <sub>8</sub> -WEHDLO	K		59	> 48	. 12
335299-1	(dK) <sub>8</sub> -dW-dE-dH-dD- dL-O	K		64	<i>n.d.</i>	
335297-1	(dK) <sub>8</sub> -D-E-V-D-L-O	K		90	> 48	> 12
335300-1	(dK) <sub>8</sub> -dD-dE-dV-dD- dL-O	K		89	<i>n.d.</i>	
330781-1	(dK) <sub>8</sub> -G-F-L-G-O	K		38	> 48	> 12
330782-1	(dK) <sub>8</sub> -G-dF-dL-G-O	K		39	<i>n.d.</i>	
339746-1	dK <sub>8</sub> -Cys-disulfide-Cys- O	K		41	17	4.25
339747-1	dK <sub>8</sub> -Cys-disulfide-Pen- O	K		35	30	7.5